

ABSTRACT OF THE DISCLOSURE

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A device and a method for detecting a period of an input signal includes a count value setting portion to set a reference clock to be counted by n times; an A/D converter to sample an analog input signal at each period of the reference clock, and convert the signal into digital values having (+) and (-) symbols; a zero cross point detecting portion to detect a change of (+) and (-) symbols of the digital values received from the A/D converter, and output the detected signal; an arithmetic processing unit to divide two sampling sectors having a zero cross point in their center by a preset value which is set in the count value setting portion, predict a zero cross point sector based on the digital values of two sampling points, and calculate a count value of the reference clock in accordance with the predicted zero cross point sector and the preset value which is set in the count value setting portion; a counter to accumulate the count values of each reference clock, which are calculated from the arithmetic processing unit, until a next change of (+) and (-) symbols of the input signal; and a period value calculating portion to divide the count values accumulated in the counter, by the preset value which is set in the count value setting portion, and calculate a period of the input signal. Detecting a period with a desired resolution can be achieved without complex hardware structure, by using the device and the method for detecting a period of input signal having above mentioned components.